

In the Claims:

Please cancel claims 1-6, without prejudice, and add new claims 13-18. The status of the claims is as follows:

1-6. (Canceled)

7-12. (Canceled)

13. (New) A signal processing method utilizing a partial response to record information on a medium and then regenerate the information from the medium, comprising:

subjecting a record signal recorded on the medium to a convolution of $(1-D)$ before a detecting process,

subjecting a regeneration signal from the medium to an equalizing process including the convolution of

$(k-sD)$

where D : one (1) bit delay operator, and

k, s : positive integer, $k \neq s$.

14. (New) The signal processing method according to claim 13, wherein the information is decoded from the equalized regeneration signal by use of maximum-likelihood detection.

15. (New) A signal processing circuit utilizing a partial response to record and regenerate information on a medium comprising:

a signal recording/regenerating system including,

a recording system subjecting a record signal recorded on the medium to the convolution of $(1-D)$ before a detecting process; and

a regenerating system subjecting a regeneration signal from the medium to an equalizing process including the convolution of

$(k \cdot s \cdot D)$

where D : one (1) bit delay operator, and

k, s : positive integer, $k \neq s$.

16. (New) The signal processing circuit according to claim 15, wherein the information is decoded from the equalized signal by use of maximum-likelihood detection.

17. (New) a signal recording/regenerating apparatus utilizing a partial response to record and regenerate information on a medium comprising:

a recording system subjecting a record signal recorded on the medium to the convolution of $(1-D)$ before a detecting process; and

a regenerating system subjecting a regeneration signal from the medium to an equalizing process including the convolution of

$$(k-sD)$$

where D: one (1) bit delay operator, and

k, s: positive integer, $k \neq s$.

18. (New) The signal recording/regenerating apparatus according to claim 17, wherein the information is decoded from the equalized signal by use of maximum-likelihood detection.